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The MIDNITE SOFTWARE GAZETTE

Now Monthly!

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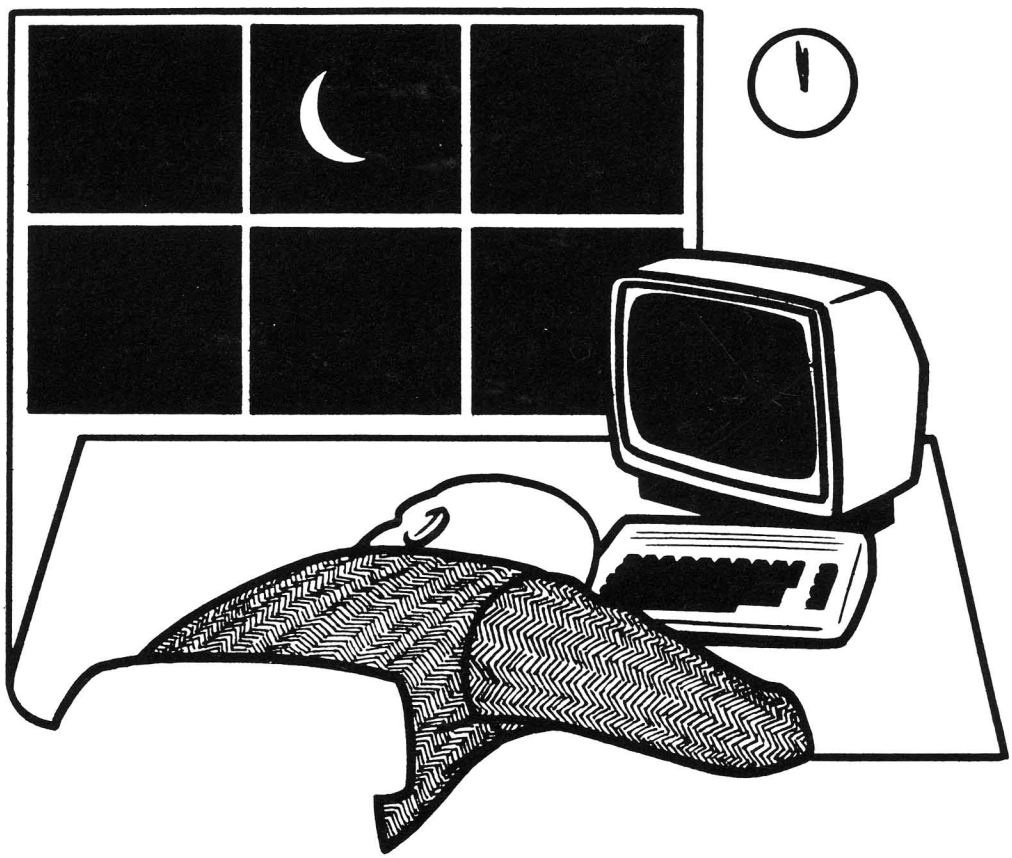

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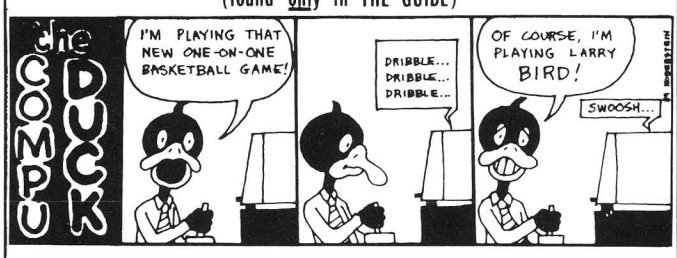
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Also included: **ReportGen, ReportMerge** [interface W/P with Database to create form letters, statements, invoices, mailing labels, other reports.]; **Baseball Statistician** [compiles batting statistics for a baseball league]; several W/P utilities, including **Index** [indexes W/P's text files]; several Database utilities, including **DBmerge** [facilitates multi-file database applications.], and **DBStat** [analyzes D/B files]; a programming utility, **ASCII,** which converts text files [program listings] into program files; also **Checkbook**; **Inventory**; **Paper Route**; **Loan Analysis**; **Breakeven Analysis**; **Depreciation**; **Labeler**; **File Copier**; more.

Versions of the package are available for every Commodore computer having a minimum of 10k RAM. All programs will support tape, disk, and printer. Price includes documentation and shipping; Calif. residents add 6%. Add $3 for credit card, COD, 8050 disk, or tape orders [disk only for Plus4™ and 16™.] No personal checks from outside USA. This ad is the catalog; a sampling of program output is available for $2.

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THE MIDNITE XPRESS NOTES

Midnite Meanderings

by Jim Strasma

Changes for the better continue at Midnite. As it became obvious my studies and teaching won't permit me to do as much writing as before, we explored ways to spread the work without compromising quality. Look for a major announcement next issue, but in addition, we are at long last going to pay for reviews. Yes, you heard correctly! Each published review, starting with issue 28 will earn you $10. To be sure everyone plays by the same rules, each issue will include a review form that asks most of the important questions, and gives as much space for your opinions as we have room to publish. Just mail it to our Champaign box office, or phone it into the computer bulletin board system at MicroPACE Computers. If you use a word processor, be sure your review includes a line for each question, with all answers in order. Since we will only publish one paid review of each product, please fill out the form completely, and cover only products we haven't reviewed. One more thing; don't send reviews from your club newsletter. After your review appears in print, we'll be glad to have it in your club news, with Midnite listed as source, but not before publication. Naturally, those of you who don't need to be paid for reviews can continue to send us anything you like, any way you can.

This is also a good time to thank the many people who wrote to thank us for past help and wish us well in our new ventures. Be assured we appreciate your kindness. Unfortunately, our move finally became necessary on only 3 days' notice - and we are just recovering! Our deepest thanks to Larry Woolard and Jay Dellow of Lincoln, and to Larry Kellogg and Steve Swango of Macomb, for helping with the move itself. We couldn't have done it without you!

THE JOYS OF A FULL-SCREEN EDITOR

After 5 weeks working with IBM 4381 and CDC 1130 Cyber mainframes, plus a DEC PDP 11 mini, I have a whole new appreciation for full-screen editing on Commodore microcomputers. Not one of the above matches either Commodore products or the IBM PC for ease of use. I find myself writing all assignments on the PC first, and then uploading them after I'm sure they work. Anyone with a word processor and a modem could do the same. I also find myself taking all my class notes on my Tandy 100 lap computer, a task for which it is wonderfully suited. Isn't it nice to know you have no need for that million dollar computer center in your basement?

OTHER PROGRAMMING LANGUAGES

On the other hand, I find COBOL to be precisely the tool I've needed for serious business programs. I'd previously assumed MicroCOBOL on the SuperPET was pretty much standard, but it's not. The features that make the language powerful also make it too big for the SuperPET, so before you call it obsolete, try it on a mainframe.

I've also been learning Pascal, the darling of several fellow student instructors. I still don't like it any better than some of them like COBOL. Still, I can see one advantage: it is very difficult to misuse without crashing your program. This protects students from themselves, and assures that programs which run at all are written more or less correctly. Even so, one thing I may never get used to about Pascal is that, although it really helps you develop programs via top-down structured design, the code itself must be written bottom-up, with trivia first, and the main program dead last.

Commodore Notes

by 'ARLANL' (alias Sheldon Leemon)
(condensed by Ellen Strasma)

[Leemon wrote this before signing a non-disclosure agreement with Commodore. Most of it will have been officially announced by the time you read this. -ED]

Calling the Amiga a Mac clone is like calling a PC AT a big pocket calculator. They are similar (both are computers, both use the 68000 chip, both have mouse-controlled windowing environments), but so are the 64 and the VIC, and nobody has ever confused them. I have talked to the Amiga designers, and several people who attended the Monterey programmers' seminar Commodore held in May. At that seminar, the Amiga people supposedly supplied enough information that you could build your own. Everybody had raves for the seminar and for the machine - in contrast to the reaction to the GEM seminar held earlier by Digital Research. At that seminar, many Mac programmers were disappointed with the system resources, which they found much weaker than the Mac. At the Amiga seminar, however, one friend sat next to a Mac programmer. The first day the Mac programmer was raving about the Mac's power and how easy it was to program, but by the second day, was ready to throw away his Mac.

The Amiga is a 68000 based computer with a windowing environment like the Macintosh or GEM. But it is not compatible with anything, least of all any other Commodore computer. If anything, it should be thought of as the next-generation Atari, since Jay Minor (who designed part of the original Atari chip set) also helped design the Amiga chip set, and the design philosophies of the machines are similar. Commodore had left the design of this machine up to Amiga entirely (which was wise, because nobody at Commodore can deal with anything as elegant and sophisticated). Forget about using your Commodore disk drives and printers with this machine. Also, forget about using Mac software or GEM software and IBM! Despite the fact that Amiga at one point mentioned the possibility of an 8088 co-processor, that seems to have been dropped long ago, and is a DEAD ISSUE.

BASICS OF THE AMIGA

The Amiga's processor will run at 8 MHz., will come with 256K of memory, and can be expanded to 512K internally (using a little board). More memory can be added externally, and the operating system can handle up to 8 Megabytes of contiguous memory (no bank switching, no segment registers, no smoke and mirrors). There is NO provision for cartridge ROM. It will also come with one built-in 3-1/2" disk drive, with an approximate capacity of 800K. Additional disk drives can be daisy chained (up to 4 floppies total) off the back port. The second disk drive uses the system power supply, so it does not need its own. There is no hard disk yet, but third parties will no doubt jump in, and the software support is there already in the OS.

The system comes standard with a nice keyboard (cursor pad, numeric pad and 10 function keys) as well as a mouse (which plugs into the joystick port I believe). The cursor control keys will move the mouse pointer, and all mouse functions can be accomplished from the keyboard. As for ports, there are standard serial and parallel ports (for a Centronics printer and RS-232). Video OUT is to any kind of monitor - analog RGB, digital RGB, composite, or even a TV set. There are even video and audio IN ports. The video IN allows you to take a composite signal (say from your VCR or video camera) and display it with computer graphics overlaid on the screen! Likewise, audio IN will let you operate on an outside audio source. Both supposedly can be used to digitize outside

signals (audio and video), though some additional hardware may be necessary (less than with other computers). There is also a side expansion port that contains virtually all the signals from the system bus. This is a TOTALLY OPEN architecture machine. A planned expansion box will let you use cards from third party manufacturers (for hard disks, and even co-processors).

ABOUT AMIGA GRAPHICS

The screen comes in several resolutions, from 640x400 in 2 color mode to 320x200 with 32 colors for each individual pixel). Colors are selected from a palette of 4096 possible colors. You are by no means restricted to one graphic mode at a time. In fact, you could even have windows with different graphics modes sitting next to each other! To get the best picture, you are going to need an 'analog' RGB monitor, though any monitor will work. I have seen the Amiga produce a readable 80 column display on a color TV (though Amiga recommends that if you use a TV, you cut the display down to 60 characters).

What about sprites? Amiga has 4 with 16 colors per, or 8 with 8 colors. They are 16 bits wide, and as tall as the screen. Do you know how to "multiplex" sprites on the 64, using interrupts to make more than 8? On the Amiga, the system will do the multiplexing for you (no interrupts required), and even let you decide priority in case two or more "incarnations" of the same sprite coincide.

But who needs sprites? The computer has several graphics support chips, big VLSI mothers as dense as a 68000 CPU. One of these is a blitter (or bit block graphics transfer chip), that can move around images on the bit-map screen at high speeds. The system lets you define "blobs" (or blitter objects). These blobs can be any size, up to as big as the screen. To move them around, just tell the blitter to erase that set of pixels and set them down somewhere else. Since a lot of the graphics is done using dedicated hardware, it's FAST. There are features like hardware line drawing and filling (you just tell it where to draw the line, with no tiresome calculations of each point on the line).

One of the nicest features of the graphics hardware is that it uses the "off-phase" periods of the system clock, when the processor is not using the bus. As a result, graphics, sound, and i/o for the most part run in the background, without taking up any processor time at all. When the processor tells the graphics chip to draw a line or fill a shape, it doesn't have to hang around and wait for it to get done, but goes on to its next instruciton, while the graphics chip takes care of biz. Likewise, when the processor requests disk access, the DMA controller takes over, so that the next thing the processor knows, it's got a whole buffer full of data (the DMA controller also make for FAST disk access). I was told that with medium-heavy animation going on, the 68000 would only lose about 5% of its throughput speed.

Another important thing to remember is that the Operating System takes care of lots of things that normally are done by applications software. For example, on the 64, you need a program to do bit-map graphics (like an extended BASIC or drawing program). On the Amiga, practically every graphics feature you can think of is part of the Operating System, so that the commands can be called by any program (familiar to Atari owners). For example, if you wanted to create a scrolling window on a virtual screen 132 characters wide by 80 lines high, you tell the OS just that, and it automatically does it to your screen. Want to print out the whole 132-80 virtual screen? No problem. The system has printer drivers for graphics dumps to 6 different printers (including Epsons, ink jets, and color printers) built into the OS!

There are many more graphics features, like 2 different background screens with switchable priorities, and bit-planes. With the power of the graphics processor, virtually any kind of complicated graphics and animation can be accomplished from high level languages like C (and probably BASIC) WITHOUT MACHINE LANGUAGE programming. My friends can't think of any graphics effect that is not supported by the OS and would require machine language.

ABOUT MUSIC ON THE AMIGA

The Amiga has 4-voice stereo sound (2 voices on the left channel, 2 on the right channel). Each voice is polyphonic, so that you can play a whole chord with a voice. The operating system handles most of the work, letting you control the waveform of each voice precisely, and also has defaults, so you could pick a 'piano' or 'trumpet' voice. It supposedly can even do digital sampling. There appears to be great flexibility and power. For example, compared to S.A.M., the Amiga has a much better synthesizer, that can speak with a male OR a female voice. The OS even lets you program the speech with phonemenes OR use built-in text to speech conversion programs. It can even READ you the disk directory out loud!

ABOUT THE OPERATING SYSTEM

The Amiga operating system is called Intuition. It is a windowing environment with icons and a mouse (like the Mac). Unlike the Mac, you can use the windowing environment without the mouse, and even use the system without the icons. Though the Mac is known for its many built in programmer's tools (like reading the mouse for you during exception processing and handing you the result), the Amiga is said to have even more extensive support, making its OS more like a language than an operating system. The programmer can use all or none of the many layers of OS, from the most basic hardware functions, to OS entry points, to the user interface.

This unique DOS is said to have "every conceivable feature that you could ever think of, and then some." It supports heirarchical directories like PC DOS (directories with subdirectories). Most amazing is that Intuition is a full multi-tasking OS! You can run as many applications concurrently as memory will permit. My friend saw the Amiga folks bring up the OS window, open another window, run a graphics demo, and open two more windows, until there were 3 graphics demos, a text editor, and DOS running AT ONCE - with no visible slowdown of any program!

What will this amazing computer cost? A 256K, one-drive system with analog RGB color monitor should cost "under $2,000."

1541 HEADER COMMAND

Q: One particular interesting detail I've discovered about the 1541 as a result of Dick Immer's book (Inside Commodore DOS): Apparently the 1541 DOS inserted eight "55's" after the header information in the header block, before the data block sync mark. All of the four 1541's I have appear to insert nine "55's." Have you heard anything about this? -Greg Wetzel

A: No, but perhaps a reader has. -JS

READING DOS-PROTECTED DIRECTORIES

Hope I can help you with a **Disk Master** problem (RUN, December 1984). **Disk Master** reads the directory of a disk by accessing trk 18 sect 0 as if it were the beginning of a sequential file. Unfortunately, some commercial disks have diddled with the normal state of affairs, and **Disk Master** won't work. The solution is to rewrite **Disk Master** so it uses U1 and U2 commands. This also speeds up the operation somewhat. I've done this and it works with everything I've found. If you'd like a copy, send a self-addressed mailer and a blank diskette. -Paul Sims Wright, 4302 Rolling Stone Way, Alexandria VA 22306

WHAT CLEANS WRITE PROTECT TAB RESIDUE?

Q: What can be safely used to clean up the sticky residue left by write protect tabs on disks? Alcohol does not always work and I'm afraid of anything stronger. -Herb Gross, 833 Prospect, Elgin IL 60120

A: How about lighter fluid? -JS

Fact: Last year, computers spewed out more than 1,200 pages of printout for every man, woman and child in the United States. -Frank Christensen (Fox Valley 64 Users Group newsletter)

LOCAL AWARDS

Here are some of Paul Blair's nominations for local awards from "Down Under":

Flop of the Year	: Ghostbusters
Sleeper of the Year	: Dream House
Aggravation	: Flight Path 737
Mags of the Year (eq)	: Transactor
	: Midnite
Lady of the Year	: Doris Bradley (TPUG)

AND FROM STEVE WOZNIAK

"The home computer may be going the way of video games, which are a dying fad. For most personal tasks, such as balancing a checkbook, consulting airline schedules, writing a modest number of letters, paper works just as well as a computer, and costs less." -Steve Wozniak (co-founder of Apple) in a Scripps-Howard newspaper article.

"I spent more time on my courses because I was trying to do all the neat things a computer can do, like beautiful graphs and nice spreadsheets. Everybody else went to bed at midnight and I was still working at 6 a.m." -Steve Wozniak, telling how he found a computer a hindrance rather than a help as a student

Video

MONOCHROME-RGB-COMPOSITE TV/MONITOR

Q: I was shopping for a monitor for my 64, but wanted it to work with the new C-128. What I found was a monitor/TV unit that had 3 modes: a regular TV, a composite monitor (for the 64) and an RGB monitor (for the C-128). It also has a button to push which turns it into a green monitor for word processing. It is the Sear TV/Monitor, model no. 195.21353450 series, that sells for $350 plus a $30/year extended warranty for 2 years. I could have the best of all 3 worlds! The problem is that the images have "ghosts"--sometimes as many as 3 or 4. When I took the unit back to the service center, they could find nothing wrong with it. I also went back and showed the salesman that his display model even had the multiple images. What can I do to correct this problem? I would like to keep the unit because it is so versatile. -Tony Velotta, R.#5 - Box 195, Mt. Vernon IN 47680

A: Ghosts in TV are difficult to exorcise. Short of waiting until "Ghostbusters" makes it to TV, your best bet may be to subscribe to cable or satellite TV. -JS

COMMODORE REVIEWS

Business Reviews

Integrated packages

VIZASTAR
2 diskettes (system disk and backup), cartridge ($129) for the **64.**
Integrated spreadsheet, database and graphics package from Viza Software, Brompton, Kent, England. DOS protected (requires cartridge). Limited 90-day media warranty. User reference guide & tutorial.

Spreadsheet: Without a doubt, the best part of the package. The display is very professional - blue lines and blue text against a white background, and an arrow marking the current cell. The spreadsheet is strikingly large, fast, and easy to use. It is written entirely in machine language, is menu-driven, and has 64 columns by 1000 rows. **Vizastar** has most standard spreadsheet functions, including multiple windows, trigonometric functions, logical operators, minimum and maximum, average, etc. It can also calculate based on dates, compare based on a look-up table, and execute user defined, user-named functions. It does not have on-screen help or linked spreadsheets. Although it has a lot of room, memory for data and formulas are the same as for **Multiplan** (10K). The company's expansion cartridge increases this to 14K.

The **Database** allows free form user-defined records with a maximum of 9 screens per record, 8000 characters per record, in a maximum of 64 fields. The operational characteristics are the standard key, first, prior, last, next and full searching. The main advantage is that the spreadsheet and database are integrated which allows the worksheet to manipulate database information and vice versa.

The **Graphics** segment allows the user to display line graphs, pie charts, bar, and 3-D multibar charts. Altogether, **Vizastar** is a very good package for small business applications. Recommended. -Mark Lofland

Update (see M#24): HOMEPAK
by Russ Wetmore, Star Systems Software, FL
$50 diskette for the **64.**
Integrated package from Batteries Included. 90 day free replacement warr. Unprotected.

HomePak is a remarkably powerful, yet unusually friendly and reasonably priced package, containing 3 of the most-used home computer applications. What better way to test it than on my novice wife, Muriel? **HomePak** is almost "idiot" friendly ('cute'), and well documented (60p. of text/illustrations). Tutorials lead you almost painlessly through (once you find the proper keys).

HomeText: PaperClip it ain't, but for simple use and handy help windows, it certainly is friendly. Saves text as sequential files (no good with **PaperClip**). **HomeTrans** translates **HomeText** files to ASCII or PET ASCII and vice versa (readable by most wordprocessors). Screen formatting is fun to watch (words aren't split at end of lines, but moved down). Maximum text limited to a 13728 byte buffer.

HomeFind: A strange mixture of query--type interfacing with the user. IBM users may find it maddeningly slow, but for Muriel, **HomeFind** makes absolute sense. Works like the 'ANIMAL' guessing game (you tell new info, which it remembers, with friendly prompts). No record/field/key stuff! SUBJECT is your main reference, TAG forms a linked reference to SUBJECT (entered as a possessive), and OBJECT relates info to the first two. Limits are 80 characters for each part (field), and 144 characters for a line (record). Files are private; a directory of the data disk always shows 664 blocks free.

HomeTerm: a very complete terminal package, that can handle ASCII and 64 dialects, plus **Vidtex** (Compuserve) and SMODEM transfer protocols. Status displays, a real-time clock, and a complete set of Macro commands always available. You can upload or download programs or text to disk or printer, as well as split the screen, allowing incoming messages to scroll merrily above while you compose a reply below. Appendix tells how to use **HomeTerm** on Compuserve. Now Muriel is excited about the Gourmet Cooking SIG! -John Easton

Stock market programs

THE STOCK AND BOND INVESTOR
Diskette for the **64.**
Stock and bond analysis and record keeping, from D.B. Wells Corp., Site 14, Box 18, Mahone Bay, Nova Scotia, Canada BØJ 2EØ. Unprotected. Warranty.

This program enables a person to analyze and keep records of investments in stocks and bonds. It also contains a program which will produce a personal net worth statement and compare net worth data for different years. There were some good and bad things about the program. I detected no program bugs. Since the program is unprotected, backup copies can be easily made. The program is supposed to mainly work with Commodore and VIC printers, but also worked nicely with my Gemini 19X printer. The main problem with the program is the poorly written manual. The manual claims the program can be used to "monitor your transactions or the trend in options, gold, silver, interest rates, the DJIA or any other index." However, the mechanics of doing those things were not explained, not were they easily deduced. For example, if you were to use the program for both common stocks and stock options, an irregular three letter symbol would have to be created for the option for the same stock. The manual does not explain how to handle stock splits, stock dividends, or dividend reinvestment. It would be nice o have a directory of disk files at each menu selection. If you can't remember thee file name (e.g., stock symbol) you used, you can't retrieve the data later. The date of purchase or sale of a stock or bond has to be entered as year, month, and day in that order. I would prefer to enter the date as month, day, and year.

There is a fundamental analysis section which allows a person to compare the fundamentals of a company with itself over a four year period or up to four different companies for the past (or any other) year. I got the needed data for the fundamental analysis from a stock broker's copy of Standard and Poors reports. It would be nice if the data generated by the fundamental analysis were explained, or at least, if the manual had a bibliography. For example, one line of the fundamental analysis program output is the debt to equity ratio. I am not sure if it is best to have a high or low figure for this ratio. In the net worth section, there are line enteries of data which use unexplained abbreviations (e.g., GIC, RRSP, RHOSP). At some points in the program it allows data to be sent to either the printer or screen, but not both. I would prefer to have the data sent to both screen and printer at the same time. If the manual were better written, I would raise my evaluation. -Lynn Harner

TAS-64 (Technical Analysis System)
3 diskettes ($85) for the **64.**
Stock market evaluation program, from Abacus Software, P.O. Box 7211, Grand Rapids MI 49510. Disk protected. Phone support. Backup copy of diskettes for $6.50. No warranty.

This program calculates 8 stock market technical indicators. Analysis of the graphs (plots) of the indicators could aid in buy or sell decisions for common stocks. It would be helpful to know something about technical analysis before using the program. However, for the uninitiated, there is a discussion of technical analysis in the 161 page manual. manual is not easy reading. Mastery of the manual and the program is a daunting task. However, once accomplished, a lot can be done with it. The program is powerful, and you get a lot for your money. The program required daily high, low, close, and volume (or bid, asked, and volume data for OTC stocks) data for its operation. This information can be obtained from financial newspapers or from Warner Computer Services or Dow Jones/News Retrieval Services.

Apparently the online program only works with the Commodore 1600 or 1650 modems. I have a Westridge modem, and I have been unable to get the program to work when using it. The program is somewhat hard to use, but that's understandable, considering the power and complexity of the program. Disks have to be switched a lot (there are three disks supplied: a master program disk, a data disk, and an online programs disk for use with one of the online

databases). The charts generated by the program can be printed on a printer. According to the manual and ads for the program, it will print to the following printers: Commodore 1525, MPS 801, Epson, Star Gemini, Okidata, C.ITOH, and Prowriter. I have a Gemini 10X printer, and the program worked nicely with it. -Lynn Harner

Word Processors

FONTMASTER, by Marty Flickinger.
$25 diskette for the **64.**
Word processor, distributed by XETEC. Requires dot matrix printer with dot addressable graphics. DOS protected. Documentation booklet.

Fontmaster's advantage over many word processors is that you can choose from user-defined or 16 standard print fonts for dot matrix printing, including English, script, Manhattan, block and upside-down. The font editor facilitates user definitions of fonts, and several fonts can be used in the same document. It has many standard word processing features, including word wrap, search and replace, block move, and formatting commands, but no mail merge or variable block type commands. The DOS protection will erase the destination disk if a copy is attempted. It will not work on printers that do not have dot addressable graphics, such as the MPS 802. Output is slow because the printer is in graphics mode. The documentation is sketchy, but the program is fairly easy to use and is a good value for the money. Recommended. -Mark Lofland

Game Reviews

Adventure games

BELOW THE ROOT
Double-sided diskette for the **64.**
Animated adventure/action game from Windham Classic. Requires joystick.

Based on the Green-Sky Trilogy by Zilpha Snyder, this game is set in the world of Green-Sky, where the inhabitants, the Kindar and the Erdling, live in giant trees. When their peaceful co-existence is threatened, one of five Questers (you) must find a way to keep the peace. The Quester is controlled with joystick, which also calls up various menus and options.

The best thing about this game is the superb graphics, as seen in minor background details, and the Quester's range of motion is very realistic. My only (minor) complaint is that the characters and objects are always found in the same place.

One refreshing apsect of the game is the complete absence of violence. Even though the quest is dangerous, there are no battles, no one gets killed, and there in only one weapon in the whole game! Even when you get captured - no dungeons or torture - you just wake up in a deserted house, and begin looking for freedom. A moderate level game, which even died-in-the-wool adventurers should enjoy. A good investment! - Art Lewis Kimball

EUREKA!
Diskette for the **64.**
Graphic adventure from Domark Limited, 228 Munster Road, London SW6, England. Distributed by Handic Software.

This may well be the ULTIMATE adventure game, not so much because it is so difficult, but because of the extras. If you actually complete this adventure, you could receive over $25,000!

In this game, the crew of Apollo XVII has found on the moon an ancient artifact,

the Temporal Talisman, and kept its existence a closely guarded secret. While they were analyzing the 15" crystal cube, it shattered and each of the eight corners vanished. Three corners have since been found through the radio frequencies they emit, but the other five are missing. Meantime, massive moonquakes are taking place which scientists believe are caused by the destruction of the Talisman. If the cube is not put back together, both the moon and the earth will be destroyed.

The missing pieces have, in fact, been transported through time: one to prehistoric Europe, one to Roman Italy, one to Arthurian Britain, one to wartime germany, and one to the modern Caribbean. As you search and find each piece, it will be transported to where it belongs, and you will move on to the next time period. If you fail, you will be trapped in that time zone forever! To complicate matters, the final piece, has been found in the modern Caribbean, and is being held for ransom! When you get it back, you must give the proper codeword by calling the secret telephone hot line in Britain, to let them know you have succeeded.

As if that weren't enough, the disks are accompanied by a book with six chapters. Each of the first five chapters give you clues to a corresponding adventure, in the form of a riddle and an illustration. You must have the clues to the first five chapters to figure out chapter six and find the solution to **Eureka!** (the hidden code and a British telephone number to call to claim 35,000 pounds Sterling)! If the adventure is not solved by December 31, 1985, the money will be divided among everyone who has sent in their warranty card. There is even a telephone number you can call (in England) 24 hours a day to find out if anyone has claimed the prize yet! -Art Lewis Kimball

JUPITER MISSION 1999

Two diskettes ($50) for the **64.**
Interactive space fantasy/graphic adventure (part 1) from Avalon Hill Game Co. 8-page booklet, 2 sealed envelopes and othe instructional leaflets. DOS protected. Joystick required.

The scenario in **Jupiter Mission 1999** is: you are sleeping in your apartment when two government officials awake you. They tell you that your country needs you, and order you to pack a bag and come with them. You find yourself being transported to a space station, and then to a space ship en route to Jupiter. The adventure starts when the crew aboard is killed in a space accident, leaving you alone with a highly intelligent computer. It is now up to you to carry out the original mission.

This a primarily a graphic adventure with a few arcade-like games scattered throughout. Like many other adventures play can be painfully slow, due to so much need for disk access. Still, the simulation is detailed enough to make it interesting and fun to play,. When you are absolutely stuck, a set of sealed envelopes give you enough hints to finish the quest. Rating: average to good. -Mark Lofland

MINDWHEEL

Two double-sided diskettes ($40) for the **64.** Text adventure from Synapse/Broderbund, 17 Paul Dr., San Rafael CA 94903.

In **Mindwheel**, you are going to save the world by looking for the "Wheel of Wisdom." To reach the Cave Master (who has the Wheel), you must go back in time mentally, by entering the minds of four dead people. You pass back and forth through these four minds trying to solve the various riddles and puzzles. There is a literary emphasis throughout, in which you must solve many riddles and put together poems from various quotations. You will want to take notes on this one! It will also help to be a baseball fan....

While **Mindwheel** is not a bad adventure, it would have rated a lot higher without the pre-publication ballyhoo about the new "Better Than Zork" language which would challenge Infocom as the leader in the adventure field. Unfortunately, the colla-

boration between Synapse and Broderbund has failed to even come close to Infocom, even though the parser is more sophisticated than most. The adventure itself is somewhat ponderous, and reveals the amateur adventure designer's habit of expecting you to do things that don't make sense. My only complaint is the need for almost constant disk access, which seems to drag on forever.

The unique and encouraging thing about **Mindwheel** is the piracy protection. The disk can be BACKED UP, using an included backup program! Also essential to the game is a 90+ page hardcover book that contains not only a novel presenting the thesis and background on the minds of the characters you'll be entering, but is also a part of the protection. Whenever you boot up the game, you must enter a certain word on a certain page in the book. This is apparently a COMPLETELY random event; in 30 starts, I only received the same password 2-3 times. Without the password, you can't play the game - and without the book - the diskette does you no good. A good intermediate-level adventure, but may discourage a few. -Art Lewis Kimball

SUSPECT
$35 diskette for the **64**
Advanced detective adventure from Infocom, 55 Wheeler St., Cambridge MA 02138

Infocom released three geat new stories just before Christmas, including **Suspect.** Unlike **Witness** and **Deadline,** you are reporter in this game instead of a detective - except that someone has framed you for murder, and the police don't seem interested in looking for other suspects, making you do your own detective work!

It all takes place at a party in a huge mansion (you'll have fun mapping this one!). Not everyone is that cooperative - and the fact that a lot of liquid refreshment was served doesn't help matters. All you have to do is figure out when, how and maybe even where the victim was murdered. Then - the who should be obvious - you hope! As usual, the packaging and the "toys" you received with the story are almost worth the price without the adventure. This one is good for 20-30 hours for most of us. -Art Lewis Kimball

WISHBRINGER
$35 diskette for the **64.**
Introductory fantasy adventure from Infocom, 55 Wheeler St., Camabridge MA 02138

(Infocom has changed their designation from "Junior" to "Introductory," so older adventurers won't be embarrassed to ask for hints on how to finish a "Junior" game!)

In **Wishbringer,** you are an innocent Postal Clerk who is asked to deliver a routine letter the The Magick Shoppe - if you can find the place! When you deliver the letter, you find yourself caught up in a battle of Good against Evil. Someone has stolen something very precious to the old lady who runs the Magick Shoppe, who enlists your aid to get it back. To help you, she gives you the **Wishbringer,** a stone that was once the heart of a beautiful Princess. **Wishbringer** can grant you seven wishes during your quest - but the more experienced adventurer can also try to solve the entire game without using any wishes.

This game is no snap even when you use the wishes. Not only is your quest constantly in peril from a troop of nasty evil policemen who march around the village looking for innocent victims to throw in jail and torture, but you also have the feeling your each and every move is being reported to The Evil One!

This is also a milestone for Infomcom addicts. For the first time, you may get to confront a creature that has killed literally thousands of Infocom Adventurers, and walk away to talk about it!. A very worthwhile addition to the library of any adventurer, and another feather in the cap of Infocom! -Art Lewis Kimball

Arcade Games

BC II - GROG'S REVENGE
$30 diskette for the **64.**
Arcade from Sierra-On-Line. 90-day warranty. Joystick required. Instruction booklet.

This is a sequel to **BC's Quest for Tires.** The object of the game is for you as Thor to complete each level of play by collecting clams while riding your wheel over treacherous mountain trails and through caves while avoiding Tiredactiles (who eat tires), rocks, stalagmites, and last but not least, Grog. When a certain number of clams are collected (for points), you can pay the toll keeper to cross the bridge, advancing you to another mountain and a higher level of difficulty. Bonus points and a higher level are also awarded for solving the clues in the instruction booklet.

This is an entertaining arcade-like game, which is somewhat challenging and humorous at first, especially to kids. However, running around the mountain on a wheel becomes boring with greater proficiency (true with most arcade games). So if you're looking for a light entertainment kind of game for your youngsters, this is one that I would recommend. -Mark Lofland

SEAFOX
Arcade game from Commodore, 1200 Wilson Dr., West Chester PA 19380.

In **Seafox,** your goal is to sink ships and opposing subs, while watching out for their return fire and hampered by strict limits on your speed of movement. Color is plentiful, if unrealistic, and an occasional beep reminds you to wake up. The only good thing I can say about it is that it doesn't require game paddles like Commodore's version. In all other respects Commodore's seems better. Not recommended. -JS

Strategy games

NEW YORK TIMES COMPUTER CROSSWORD PUZZLES
$18 diskette for the **64.**
Crossword puzzle from Softie, Inc. 90-day limited warranty. Instruction sheet.

For years the New York Times newspaper has been challenging people with tough crossword puzzles. Now we have a computerized version with 30 of these. The puzzle is displayed in standard format, with the addition of a cursor. As the cursor is moved over the puzzle, various clues are shown at the top of the screen. When you think you know the answer to a clue, you simply type it in the squares. Some additional features are: you can select screen colors; if you are stuck on a word, you can ask for another clue; you can verify the correctness of a word or letter in a specific location or for the entire puzzle; or you can display the solution. A good learning experience, and entertaining for the whole family. Recommended. -Mark Lofland

SIX-GUN SHOOTOUT
$40 diskette for the **64.**
Old West gunfights for 1-2 players, from Strategic Simulations, Inc. DOS protected. 30-day warranty. Joystick required. 22-page booklet.

This is a simulation of 10 historical gunfights of the Old West, both real and from films, such as the Gunfight at the O.K. Corral, Dalton's Demise, Rio Bravo, or make up your own. Upon selecting a scenario, you can display the characters with their names, types of weapons carried, weapon speeds, etc. The scene then shows your positions, but not those of the opposing forces unless they're within your lines of sight. Each side takes turns choosing where to move each character, what weapons fire at whom, or who should fight hand-to-hand. The results show who shot whom, and types of wounds received. You can set many variables, for hours of enjoyment. The chief disappointment, as with many SSI games, is the graphics quality, and the instructions are also more complicated than necessary. **Six-Gun Shootout** is an entertaining and challenging game, but could be better. -Mark Lofland

Interfaces

G-WIZ
$100 printer interface for all serial bus models.
Serial bus to Centronics parallel interface, from Cardco, Inc., 300 S. Topeka, Witchita KS 67202.

The **G-WIZ** is an updated version of the well-known Cardco **+G** printer interface. It answers several minor complaints users had about the earlier version, and is intended to sell for 30% less than the +G. The most notable improvement is a small RAM buffer. Though it only holds a few bytes, that is enough to solve a serious problem with earlier interfaces in printing copies of high-resolution drawings. Such pictures take only a couple of minutes now, instead of an hour or more. Next, the switches are no longer hidden under a plastic cover, but are easily visible, and clearly labeled. Though a good, full-length manual comes with the **G-WIZ**, you probably won't need it to get started. Another improvement is a reduction in size. The **G-WIZ** attaches directly to the printer port, and is about half the size of a **+G**. One drawback to this approach is that it can be more difficult to keep in place than the old version, since its weight is now resting directly on the printer connection.

Overall, the **G-WIZ** is a welcome improvement over the already very good **+G** interface. It will satisfy most printing needs for owners of most popular printer models, is well documented, and well-supported by others' software. Only those who need a large print buffer need to look further or pay more for an interface. Recommended. -Jim Strasma

PANIC BUTTON
External reset switch for the **64** or **VIC.**
$20 from Microvations, Suite 305, 16496 Bernardo Ctr., Dr., San Diego CA 92128 (619/487-5107). 1 year warranty.

The **Panic Button** is a box about the size of a mouse controller, that installs into the serial bus via a 3' "Tee" cable that doesn't interfere with installing other serial bus devices. Its one feature is a reset button that really works, and won't blow up your computer, thanks to special protective circuitry. It also comes with a short listing that will recover BASIC programs "lost" when you do a RESET. With it, you can recover lost programs even when you forgot to load the recover program ahead of time.

The unit is built like a rock, and should last a lifetime. The only problem I noted was that my 128 ignores the **Panic Button**, but of course 128's already have a RESET button, so that doesn't matter.

Though hardware hackers can build an internal RESET for less, the **Panic Button** is the only commercial RESET product I've seen that is safe and simple enough to recommend. -Jim Strasma

Update (see M#24): MODEM 300 (Model 1660 from Commodore)

This is the current modem featured by Commodore for use with the C-64, SX-64, Plus 4 and VIC-20 computers. It operates at 300 baud, is auto-dial, auto-answer, and has a built-in speaker designed to inform the user what is happening at the other end of the line before a carrier is detected, such as a busy signal. When properly connected and when using the terminal software designed for it (known as Higgeyterm, after its author, Paul Higgenbottom), it works beautifully. Unfortunately, the process for connecting the modem is not nearly as straight-forward as with the model 1650. There are many combinations, depending on your system configuration, and you must determine this based upon the pictures and list of connections in the manual (the necessary cables and adapters are included within the packaging, as well as free time on the Compuserve Information Network).

Higgeyterm has some nice features: disk directory commands, reading and writing to the memory buffer, loading and saving of parameters, a utility to define function keys (to output user-defined strings to the modem), and an on-line clock, to name a few. One of the limitations of Higgterm is that it does not upload or download using an error-checking protocol. You must read files into the buffer and then save them to the disk. The sequential file created during this process must then be converted to a program using a file translator program listed in the manual, which is a very cumbersome process. You are saying that there are lots of terminal programs on the market which you could purchase to get by this limitation? Well, think again. Unless that terminal program is written specifically for the Modem 300, it is very likely incompatible. There are, however, some programs available from various user's groups and bulletin boards that will work. In summary, if you like the idea of the built-in speaker and want the most up-to-date modem from Commodore, here it is. Otherwise, you might be better off with something else. -Mark Lofland

Update (see #22): MITEY MO MODEM

UPDATE #1: The Mitey Mo is another 1650 incompatible modem. A few commercial programs, such as **Smart Terminal+4**, have been revised to support it. Not recommended. -Paul Motise (Rockville Hardcopy)

UPDATE #2: After using the Mitey Mo for 3 months, I would highly recommend it to anyone. -Lyle R. Giese

TOTAL TELECOMMUNICATIONS MODEM
from TeleLearning Systems.

This is TeleLearning System's version of the CBM Model 1650 modem. Its features include: 300 Baud, auto-dial, auto-answer, easily connected to your computer and telephone line, and appears to be completely compatible with communications software designed for use with the 1650. One additional feature (not found on the 1650) is that the modem sets Answer/Originate mode for you automatically, which leaves you with one less thing to worry about.

The included terminal software is fairly easy to use, and has many features included in other software packages, such as setting terminal parameters, ASCII-cbm translation, auto-logon editor, and on-line clock. It does not, however, have any built-in protocols, such as Punter or xmodem. Data must be uploaded or downloaded into a buffer and then saved or transmitted.

The manual instructions are easily read, and contains information on the modem specifications, software instructions, Tymnet phone numbers for the continental U.S., troubleshooting tips, and information concerning access and use of the Total Telecommunications Info Center, which offers direct connection with over 60 data bases, which are listed along with a brief description and connect-time charges. Altogether, I would consider this modem as a good buy for the money. -Mark Lofland.

Feature Article:
DISK HINTS

A SUMMARY OF DOS WEDGE COMMANDS

compiled by Jeff Eklund
Dover High School
702 Park Av., N.W.
New Philadelphia OH 44663

1)	@	gives the current disk status
2)	@$	reads the directory and prints it to the screen does not interfere with BASIC memory equivalent to LOAD"$",8 (destroys any BASIC program in memory)
3)	@$:filename	selective directory
4)	@$*=P or @$*=S or @$*=R	selective search for program, sequential or relative files
5)	@N:diskname	erase directory from disk (called a "short new")
6)	@N:diskname,id	formats a disk (called a "long new") equivalent to OPEN15,8,15,"N:diskname,id":CLOSE 15
7)	@R:newname=oldname	rename a file
8)	@S:filename	scratches or erases a file from a disk
9)	@I	initializes the drive
10)	@V	validate disk
11)	@#n	set active device number
12)	@Q	terminate wedge program reactivate: SYS52224 @#8
13)	/filename	loads a BASIC program into memory equivalent to LOAD"0:filename",8
14)	%filename	loads a machine language program into memory equivalent to LOAD"0:filename",8,1
15)	filename	equivalent to LOAD"0:filename",8 and RUN
16)	<-filename	equivalent to SAVE"0:filename",8
17)	<-@:filename	equivalent to SAVE"@0:filename",8
18)	@C:newname-oldname	copy a file onto the same disk
19)	@C1:newmane=0:oldname	copy old filename on drive 0 to new filename on drive 1
20)	@C1=0	copy all files on drive 0 to drive 1
21)	@D1=0	backup or duplicate source disk in drive 0 to destination disk in drive 1
22)	@C0:newfile=file1,file2,file3,file4	concatenates up to 4 sequential data files
23)	@UI+	speed change - 64 speed
24)	@UI-	speed change - VIC speed
25)	@U;	reset the disk drive (as if drive were turned OFF & ON again)

MISCELLANEOUS:

The pattern-matching (*) and wild-card (?) characters can be used to read, but not write, filenames.

Material following the @ or other special symbol may be enclosed within quotes - useful when loading a program whose name begins with a blank space or if you wish to use the DOS commands from within a program.

Ø or 1 can be inserted just before any colon, to indicate the drive number in a multi-drive disk unit.

The @ symbol may be replaced by >.

Many commands will accept multiple parameters. For example:
@SØ:file1,file2,file3 will scratch file1,file2, and file3.

When saving a program with the wedge, if you enclose the last character in square brackets, that character will be moved to the 16th position, which is the volume ID. The wedge commands look for the volume ID when you specify it inside square brackets. To get a directory of all files with volume ID K, use: @$:*[K] <RETURN>. (Caution: the wedge will report the 16th character of any filename as a volume ID).

The boot program for the wedge is written in BASIC, making it very easy to make modifications. For example, you can create a special boot for new 64 users that sets Upper case/Graphics mode; disables case switching; sets background, border, and character colors; enables all keys to repeat; and speeds up or slows down the cursor.

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Describe plot and/or features **briefly.** Then evaluate effectiveness, reliability, frequency of use, clarity of on-screen & written instructions, & amount of disk access. Describe what you like and dislike about it. Compare to similar packages, and tell who would want to buy this product.

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For **Business** programs, specify file type; size of records & fields, or text files; # of characters per field & fields per record

For **Education/Game** programs, specify type of game (adventure, arcade, strategy) or type of learning (game, simulation, tutorial, drill, test, administrative); age level and subject; pre-game options, levels of difficulty & interest, continuous play, # of players, violence; graphics/sound quality, ease of play.

For **Hardware,** specify how it connects; software compatibility; protocols used.

For **Terminal** programs, specify baud rate; protocols used; upload/download features.

For **Utilities** programs, specify type of aid (computer, disk, graphic, sound, programming); # and quality of programs

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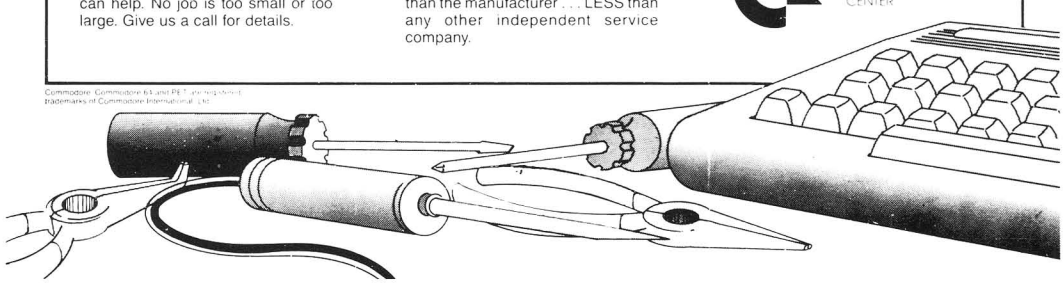

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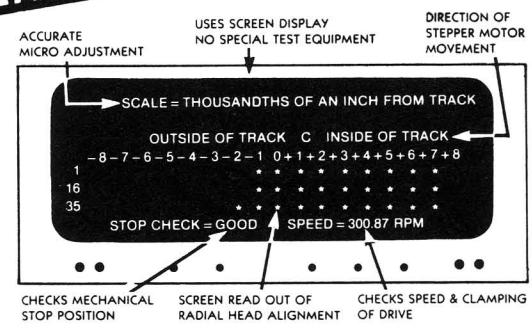
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